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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,623	07/07/2003	Arnold I. Klayman	SRSLABS.053C3	7854

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EXAMINER	
LEE, PING	

ART UNIT	PAPER NUMBER
2615	

NOTIFICATION DATE	DELIVERY MODE
02/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/614,623	Applicant(s) KLAYMAN, ARNOLD I.	
	Examiner Ping Lee	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-22 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 17-22 is/are allowed.
- 6) ☒ Claim(s) 9, 13-15, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 10-12 and 27-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 25 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Desper (US005412731A).

Regarding claim 25, Desper discloses a method for enhancing sound, the method comprising:

receiving at least a first input and a second input (48, 50), wherein the first and second inputs comprise at least a first set of lower frequencies and a second set of frequencies that occur at a range of frequencies that are higher than the first set of lower frequencies (the original signals inherently include lower frequencies in combination with other frequencies);

spectrally shaping difference information (by 110 or 112) in the first and second inputs (from 74), wherein spectrally shaping the difference information boosts the amplitudes of the second set of frequencies relative to the amplitudes of the first set of lower frequencies (col. 9, line 15-16); and

combining (by 60 or 80) the spectrally shaped difference information (from 110 or 112) with at least a portion of the first set of lower frequencies in the first and second inputs to generate an output that contains the spectrally shaped difference information and the portion of the first set of lower frequencies.

Regarding claim 26, Desper discloses that spectrally shaping the difference information further reduces the amplitudes of a third set of frequencies relative to the amplitudes of the second set of frequencies, the third set of frequencies occurring at higher frequencies than the second set of frequencies ("mid-band boost").

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Desper.

Regarding claim 9, the claimed equalizer reads on 110 or 112 and the claimed summing circuit reads on 60 and 62. Desper discloses the claimed invention with the exception of a first and second high-pass filter in communicated with a difference circuit. However, the output signal from the claimed difference circuit is the difference between high-frequency first signal and the high-frequency second signal. This is exactly what the output of filter 94, disclosed in Desper, is. Desper teaches that the difference

between the first and second signals is being determined first and then passes it through a high-pass filter. Thus, depending on the engineer's preference, it would have been obvious to one of ordinary skill in the art to modify Desper by using two high-pass filters connected to a difference circuit in order to generate the similar output.

Regarding claim 14, Desper fails to show a DSP. However, Desper made plenty of suggestions that the input signals could be digital and the delay is a digital delay. Examiner takes Official Notice that using a DSP to implement high-pass filters, the difference circuit, the equalizer and the summing circuit is notoriously well known in the art. Thus, it would have been obvious to one of ordinary skill in the art to modify Desper by using a DSP for performing the enhancement in order to process digital input signals directly.

Regarding claims 13 and 15, Desper shows the level adjust circuit (98 or 102).

Allowable Subject Matter

5. Claims 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 1-12 and 17-22 are allowable over the prior art in the record.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

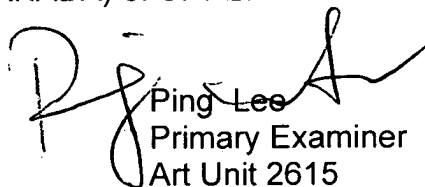
The examiner can normally be reached on Monday, Wednesday and Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ping Lee
Primary Examiner
Art Unit 2615

pwl